

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**POWER OF ATTORNEY WITH REVOCATION AND  
CHANGE OF CORRESPONDENCE ADDRESS**

I hereby revoke all previous powers of attorney or authorizations of agent given in the applications identified in Table A attached hereto, and appoint

☒ Practitioners at Customer Number: 34138



as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the Correspondence Address for all applications identified in Table

A to:

☒ Practitioners at Customer Number: 34138

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. (A statement under 37 CFR 3.73(b) is enclosed.)

Respectfully submitted,  
ISIS PHARMACEUTICALS, INC.

Date: 5-30-03

By: \_\_\_\_\_

Name: B. Lynne Parshall  
Title: Executive Vice President

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant, **ISIS Pharmaceuticals, Inc.**, a corporation, states that it is:

☒ the assignee of the entire right, title, and interest of the applications identified in Table A attached hereto.

The extent (by, percentage) of its ownership interest is **100%** in the patent applications identified in Table A by virtue of:

☒ a copy of the pertinent assignment from the inventor(s) of the patent applications identified in Table A is enclosed herewith.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Respectfully submitted,

ISIS PHARMACEUTICALS, INC.

Date: 5-30-03

By: \_\_\_\_\_

Name: B. Lynne Parshall

Title: Executive Vice President

TABLE A

SERIAL NO.	FILED DATE	INVENTORS	EXAMINER	ART UNIT	TITLE
09/346,596	April 10, 2000	Cook, Manoharan, Bennett	J.N. Fredman	1637	Compositions and Methods for Enhanced Biostability and Altered Biodistribution of Oligonucleotides in Mammals
09/902,953	July 11, 2001	Krolz, Mehta	J.Schuliz	1635	Enhancement of the Stability of Oligonucleotides Comprising Phosphorothioate Linkages by addition of Water-Soluble Antioxidants
09/944,493	August 22, 2001	Weinbach, Tillman, Geary, Hardee	Not Yet Determine	1615	Pulsatile Release Compositions and Methods for Enhanced Intestinal Drug Absorption
09/935,316	August 22, 2002	Teng, Weinbach, Tillman, Geary, Hardee	Not yet determined	1632	Bioadhesive Compositions and Methods for Enhanced Intestinal Drug Absorption
10/029,598	December 21, 2001	Teng, Cook, Tillman, Hardee, Ecker, Manoharan	J. Epps	1635	Compositions and Methods for Non-Parenteral Delivery of Oligonucleotides
09/315,294	May 20, 1999	Mehta, Hardee, Cook, Ecker, Tsai, and Templin	M. Schmidt	1635	Compositions and Methods for Topical Delivery of Oligonucleotides
09/315,298	May 20, 1999	Teng, Cook, Tillman, Hardee, Ecker and Manoharan	J. Epps	1635	Compositions and Methods for Non-Parenteral Delivery of Oligonucleotides
09/108,673	July 1, 1998	Teng, and Hardee	W. Sandals	1636	Compositions and Methods for the Delivery of Oligonucleotides via the Alimentary Canal



F EIVED

2003



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

1515-3105



\*100917945A\*

MARCH 12, 1999

Woodcock Washburn Kurtz  
Mackiewicz & Norris LLP

PTAS

WOODCOCK WASHBURN KURTZ MACKIEWICZ ET AL  
PAUL K. LEGAARD  
ONE LIBERTY PLACE, 46TH FLOOR  
1650 MARKET STREET  
PHILADELPHIA, PA 19103-7301

**UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 11/27/1998

REEL/FRAME: 9620/0012  
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

TENG, CHING-LEOU

DOC DATE: 09/15/1998

ASSIGNOR:

HARDEE, GREG

DOC DATE: 09/17/1998

ASSIGNEE:

ISIS PHARMACEUTICALS, INC.  
2292 FARADAY AVENUE  
CARLSBAD, CALIFORNIA 92008

SERIAL NUMBER: 09108673  
PATENT NUMBER:

FILING DATE: 07/01/1998  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

12-09-1998



To The Honorable Commissioner of Patents and Trademarks  
thereof.

100917945

he attached original documents or copy

1. Name of conveying party(ies):

(1) Ching-Le u Teng, (2) Greg Hardee

Additional name(s) of conveying party(ies)  
attached? ( ) YES (X) NO

3. Nature of Conveyance:

(X) Assignment ( ) Merger

( ) Security Agreement

( ) Change of Name

( ) Other:

Execution Date(s): (1) 9/15/98 (2) 9/17/98

2. Name and address of receiving party(ies):

Name: ISIS Pharmaceuticals, Inc.

Street Address: 2292 Faraday Avenue

City: Carlsbad

State CA

ZIP 92008

Additional name(s) & address attached? ( ) YES (X) NO

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

09/108,673

B. Patent No.(s)

Additional numbers attached? ( ) YES (X) NO

5. Name and address of party to whom correspondence  
concerning documents should be mailed:

Name: Paul K. Legaard

Internal Address: WOODCOCK WASHBURN KURTZ

MACKIEWICZ & NORRIS LLP

One Liberty Place - 46th Floor

Philadelphia, Pennsylvania 19103-7301

Street Address: WOODCOCK WASHBURN KURTZ

MACKIEWICZ & NORRIS LLP

One Liberty Place - 46th Floor

1650 Market Street

Philadelphia, Pennsylvania 19103-7301

6. Total number of applications and patents involved:

7. Total fee (37 CFR 3.41):.....\$40.00

(X) Enclosed

( ) Authorized to be charged to Deposit Account  
Number 23-3050

8. Please charge any deficiency or credit any  
overpayment to Deposit Account Number 23-3050

DO NOT USE THIS SPACE

9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Paul K. Legaard/38,534

Name of Person Signing/Reg. No.

Signature

November 23, 1998

Date

Total number of pages including cover sheet, attachments, and document: 7

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks  
Box Assignments  
Washington, D.C. 20231

12/07/1998 JMTKINS 00000026 0511 40.00 UP 61 FC:531

PATENT  
Joint Inventors

DOCKET NO.: ISIS-3105

(Pending Application;  
Serial No. 09/108,673)

A S S I G N M E N T

WHEREAS, we Ching-Leou Teng and Greg Hardee, hereinafter referred to as the assignors, residing respectively at 4571 Mercurio Street, San Diego, California 92130 and 17407 La Brisa, Rancho Santa Fe, California 92067 are the joint inventors of certain inventions or improvements for which we have made application for Letters Patent to the United States, identified as Serial No. 09/108,673, filed July 1, 1998, entitled COMPOSITIONS AND METHODS FOR THE DELIVERY OF OLIGONUCLEOTIDES VIA THE ALIMENTARY CANAL; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed

PATENT  
Joint Inventors

and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Ching-Leon Teng (L.S.)  
Wm E. H. Lee (L.S.)

PATENT  
Joint Inventors

[WHERE ALL INVENTORS SIGN BEFORE THE SAME NOTARY:]

\_\_\_\_\_: SS  
COUNTY OF \_\_\_\_\_:

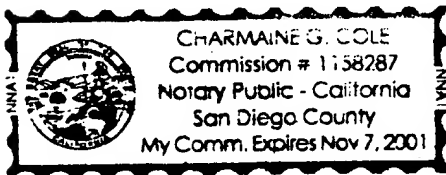
On this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, before me personally came the above named \_\_\_\_\_ to me personally known and known to me to be the same individuals who executed the foregoing assignment, and who acknowledged to me that execution of the same was of their own free will for the use and purposes therein set forth.

\_\_\_\_\_  
Notary Public

[WHERE INVENTORS SIGN BEFORE SEPARATE NOTARIES:]

State of California:  
COUNTY OF San Diego: SS

On this 15<sup>th</sup> day of September, 1998, before me personally came the above named Ching-Leon Teng to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

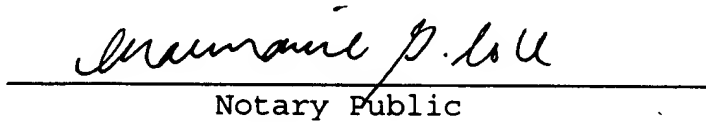


Charmaine G. Cole  
\_\_\_\_\_  
Notary Public



State of California :

On this 17<sup>th</sup> day of September 1998, before me personally came the above named Greg Hardee to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.



FORM PTO-1595  
1-31-92

RECORDATION FORM COVER SHEET  
PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To The Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

(1) Ching-Leou Teng, (2) Greg Hardee

Additional name(s) of conveying party(ies)  
attached? ( ) YES (X) NO

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( ) Security Agreement  
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1650 Market Street  
Philadelphia, Pennsylvania 19103-7301

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